WEEKLY PROGRESS UPDATE
FOR JANUARY 21 – JANUARY 25, 2002

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 & 1-2000-0014
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from January 21 to January 25, 2002.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of January 25 is summarized in Table 1.

Table 1. Drilling progress as of January 25, 2002

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-193	J-3 Range Well (J3P-12)	85	53	
MW-194	J-3 Range Well (J3P-13)	93	36	
MW-197	J-3 Range Well (J3P-11)	165	145	
MW-198	J-3 Range Well (J3P-16)	155	135	
MW-201	Central Impact Area Well (CIAP-10)	400	204	266-276, 286-296, 306-316

bgs = below ground surface
bwt = below water table

Completed well installation at MW-201 (CIAP-10). Well development continued for newly installed J-1 Range, J-3 Range and Central Impact Area wells.

Samples collected during the reporting period are summarized in Table 2. Sampling of preliminary rounds for recently installed Central Impact Area, J-1 Range, Phase IIb and Demo 1 Area wells continued. Groundwater samples were also collected from 90PZ0208. Water samples were collected from the GAC treatment system. Post-excavation soil samples from BIP crater excavations were collected in the Central Impact Area.

As part of the Munitions Survey Project, pre-detonation and post-detonation soil samples were collected from Transect 2 in the HUTA2. Soil samples were collect from polygons in the J-1 Range and from grids along Transect 3 in the HUTA2.

The Guard, EPA, and MADEP had a meeting on January 24 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)	CPT Bill Myer (IAGWSPO)	Dave Hill (IAGWSPO)
Karen Wilson (IAGWSPO)	Bill Gallagher (IAGWSPO)	LTC Bill FitzPatrick (MAARNG)
Todd Borci (EPA)	Jane Dolan (EPA)	Mike Jasinski (EPA)
Desiree Moyer (EPA)	Jim Murphy (EPA)	Len Pinaud (MADEP)
Mark Panni (MADEP)	Alan Williams (ACE)	Gina Tyo (ACE)
Ed Wise (ACE)	Heather Sullivan (ACE)	Ellen Iorio (ACE)
Rob Foti (ACE)	John McPherson (ACE)	Marc Grant (AMEC)
Kim Harriz (AMEC)	John Rice (AMEC)	Jay Clausen (AMEC-phone)
Herb Colby (AMEC)	Larry Hudgins (Tetra Tech)	Leo Montroy (Tetra Tech - phone)
Pete Redmond (Tetra Tech)	John Webster (Tetra Tech)	Dave Williams (MDPH)
Adam Balogh (TRC - phone)		

Punchlist Items

#1 Snake Pond area well verification (AFCEE). AFCEE unlikely to complete verification before spring. Jane Dolan (EPA) requested that the location of 90MW0054 be verified by GPS.

#2 Access 90PZ208 (Corps). Copy of certified letter sent to the homeowner was provided to the EPA. Piezometer 90PZ208 was sampled on 1/21/02. Samples to be analyzed for Perchlorate and explosives.

#5 Provide update on interview schedule for Witness #19 (IAGWSPO). Witness #19's attorney responded to the interview request. Witness #19 will be available for an interview after the Department of Justice has completed their investigation.

#7 Provide ASR witness summaries (Corps). Completed last week.

#9 Provide Project Note on SOW/WP Process (Corps). Project note provided at Tech meeting.

#11 Respond to EPA comment letter re: Method 8270-SIM for DNTs (AMEC). Response faxed 01/18/02.

#14 Provide response to EPA comments on Demo 1 Soil PCN, Dye and Perchlorate results (AMEC). Response emailed 01/18/02.

#15 Provide date J-2 Range soil dye results available (AMEC). Results provided by email 01/23/02.

#17 Provide feedback on recommendation for MW-181 RAD analyses (EPA). Feedback to be provided by 01/31/02.

HUTA2 Dig Maps

John Webster (Tetra Tech) reviewed the EM61 survey data compiled for the HUTA2 Transects via overhead projector. Two EM61 surveys are to be completed at each transect. Electromagnetic conductivity data collected in the initial, baseline survey is utilized to develop a list of anomalies for excavation. After excavation of all targeted anomalies, a final EM61 survey is conducted to compare to the baseline survey. The survey is conducted on two or three (Transect 5 only) legs for each transect along a grid comprised of 7 m X 7 m cells.

Transect 1 - Both initial and final EM61 surveys have been completed. The background electromagnetic signal strength was approximately 0 mv as shown by the gray color code on the figure. This transect had a low saturation of anomalies that resulted in only 280 picks, and a few "hot rocks". All picks were excavated. The majority of the anomalies were 75mm and 155mm shrapnel - pre-WW II. The final EM61 survey showed that the excavated material had contributed significantly to the elevated EM readings along the transect.

Transect 2 - Only the initial EM61 survey has been completed. The background

electromagnetic signal was approximately 32 mv. There was a relatively high saturation of anomalies in this Transect and Transects 3 and 4 when compared to Transects 1 and 5.
Transect 3 - Only the initial EM61 survey has been completed. The background electromagnetic signal was approximately 32 mv.
Transect 4 - Only the initial EM61 survey has been completed. The background electromagnetic signal was approximately 36 -40 mv. The terrain in this area is hummocky.
Transect 5 - Both EM61 surveys were completed. The background EM signal strength was approximately 0-4 mv in this area. "Hot rocks" were seen on the southern leg. A third leg was added for this transect to cross particle backtracks and be oriented across a ridge. Excavation of anomalies revealed mostly old-style mortar rounds to a depth of 3 ft.

- Todd Borci (EPA) requested that information on #picks, #UXO, and UXO type be provided as the excavations in Transects 2,3, and 4 are completed. Ellen Iorio (ACE) indicated that similar to the J Range Polygons, this information could be provided in the weekly update.
- HUTA2 work will proceed until 02/11/02 at which time there will be a break to allow for well installations in the Central Impact Area. The work will not be completed by this date.
- Ms. Iorio indicated that sampling results received to date for the HUTA2 project would be provided at the end of the meeting. A PDA-column was listed in the table. All results provided are PDA-confirmed yes, since PDA confirmation is performed immediately.

Munitions Survey Project Update

Rob Foti (Corps) provided an update on the MSP3 and HUTA tasks.
AirMag. AirMag work will start on February 11.
HUTA2. Transects 1&5 -QA magnetometer survey, to be completed with Nick Iaiennaro (ACE), is pending. Transect 2 - Excavation of anomalies is the next step. Two BIPs are scheduled for Friday 01/25 for a 105 HE MI with M51 series PD fuze and 155mm HE M107 with M51 Series PD Fuze. Transect 3 - Soil sampling to commence today. Transect 4 - Next step is intrusive investigation of anomalies.
J Range Polygons. Investigation of J-2 Range Polygons 6-15 which are outside the Sandwich buffer zone are being conducted this week. Mortars discovered at J-1 Range Polygon 9 previously reported to have been buried, have been re-assessed to have been fired and landed as discovered. Excavation of J-1 Range Polygons 1-5 that require notification to the town of Sandwich will commence Monday (01/28), pending notification approval. The Corps is coordinating activities with AMEC so that sampling can proceed at J-2 Range Polygons 17, 23-25, since the intrusive investigation is being moved to J-1 Range. Polygons in J-1 and J-2 Ranges requiring notification will be investigated consecutively so that only one notification will be required. Excavation of other J-2 Range potential burial sites will then follow and finally excavations at J-3 Range.

- Todd Borci indicated that he thought the map showing the Polygon locations that was distributed at the IART meeting was an effective (good) map.

Eastern MSP. ROA awaiting approval.
Scar Site/U Range. ROA for these sites was submitted on 1/21.
BA-1 Disposal Site. No activity. Fluid in electron tubes will be sampled for characterization pursuant to disposal.

- Ellen Iorio (ACE) indicated that Workplans for the Eastern MSP, Scar Site and U Range will be provided at the end of the meeting. A Project Note with review schedule was prepared for signature.

Summary of Action Items

- Total Picks, #UXO, UXO type will be compiled in a HUTA2 Update - to provided with MSP Update distributed each week.

- Per Jane Dolan's request, potential Polygons that are being evaluated for investigation will be numbered consecutively in accordance with current scope of work. Numbering will be completed after the new scope of work is developed.

Scrap Contract Update

John MacPherson (ACE) provided an update for the Scrap Contract and proposed activities.

- USA Environmental sub-contracted with FENN-VAC for recycling scrap. OE scrap will be sent to Stateline Scrap, South Attleboro, MA for processing (crushing, shredding, melting) to lose identity. Targets and non-military scrap will be sent to Prolerized New England, Everett, MA.
- Targets, which are known to have some contamination, will be sampled with swipes. If the swipes show no contamination, the targets will be cut in 1 ft by 3 ft sections. These pieces will be transported to Prolerized recycler facility for remelting.
- Targets 17-24, which are located on roads, will be removed beginning 02/11. Prior to their removal, the targets will be cleared of UXO and every effort will be made to disturb the soil as little as possible during the removal process (by crane). Targets included in the Targets Sampling Plan will either not be removed or the soil not disturbed upon Target removal.
- Bill Gallagher (IAGWSPO) indicated that the contractors would be looking for fluid leaks or leaked during target removal to perform limited soil removals in response to leaks.
- Todd Borci requested that a stake with Target number be placed at any Target locations from which Targets are removed. In response, the Corps pledged to develop some type of more permanent marker for former Target locations.
- The Corps is compiling data regarding the areas around the Targets that will require road building as part of the removal process. The Corps is discussing what the plan will likely be for these Target areas and discussing the plan with Karen Wilson (IAGWSPO) in terms of natural resource impacts. At the conclusions of these discussions, a plan will be presented to EPA/MADEP.
- In response to Mike Jasinski's (EPA) inquiry, Mr. MacPherson stated that UXO discoveries, as part of the Target removal (within Targets not necessarily the area surrounding), will be reported and tracked as part of the Incident Report process. Information on UXO discoveries documented in Incident Reports is maintained in a Corps database.
- EPA/MADEP advised that based on information regarding the scrap contract provided to date by the Corps Project Engineer, they approve of the recommended process and the Corps and Guard may move forward.

Demo 1 Area Additional Delineation

- Karen Wilson (IAGWSPO) summarized her discussions with Hanni Dinkeloo (Natural Heritage) regarding the Demo 1 Additional Delineation Plan and natural resources considerations. Ms. Dinkeloo approved installation of the D1P-9 and two wing wells. However, data from these wells and further justification will have to be made in the event that the Guard wants to install the additional downgradient wells (DC1-3 and/or D1C-4, D1C-5). The Guard will not be able to go ahead with the second phase of well installation without resubmitting a ROA.
- Ms. Dinkeloo's formal approval of the ROA for the first three wells is pending receipt of Road Construction Plan and Exotic's Plan, both will be completed Monday 01/28 for Ms. Dinkeloo's review. Approval of ROA is expected prior to Ms. Dinkeloo's departure from her position on 02/01.
- Mike Jasinski (EPA) stressed that the road building and well installation should be conducted as expeditiously as possible. Preferably, road building should be scheduled to start on 02/01, immediately upon receipt of Ms. Dinkeloo's ROA approval.
- Len Pinaud (MADEP) and Mike Jasinski (EPA) requested an updated schedule for plume

delineation - discussion to be included as an agenda item for 01/31 Tech Team Meeting. Ms. Wilson suggested that one-week be allowed for the natural resource review, if a second phase of well installation is required. Revised FS is currently scheduled to be submitted in August.

Documents and Schedule

Marc Grant (AMEC) reviewed the document and schedule status. Important outstanding items were addressed as follows:

- Len Pinaud (MADEP) requested the resolution on procedure for finalizing long outstanding documents including: IAGS 1999 Interim Results Report, IAGS Phase I COWR Comment Response, Tech Memo 99-5 (Background Groundwater), TM 01-4 (Soil Distribution Report), TM 01-1 Soil Background Proposal.
- 1999 Interim Results Reports - Tech team agreed that to close the Administrative Record on this report, a letter should be drafted stating that outstanding comments for this report and the conclusions of the report have been "Overcome by Events," the information and conclusions in the document have been superceded by subsequent documents. Guard to draft letter for review by Tech team to concur on specific language.
- Phase I COWR Comment Response - *Ibid*.
- Tech Memo 99-5 (Background Groundwater) - No resolution achieved. Tech team to revisit at later date. Ben Gregson (IAGWSPO) noted that under the MCP, the Guard had submitted a Response Action Outcome (RAO) for metals in groundwater at Camp Edwards to be considered background. No follow-up by the agencies is required.
- TM 01-1 Soil Background Proposal - Tech team agreed that this document should be revised with new background data currently being evaluated for PCNs, dioxin/furans, MCPA, MCPP. Agreement has already been reached on soil background concentrations for SVOCs, VOCs, DDT, and DDE. The new data will be available in approximately one month. MADEP to comment within that time frame so that comments can be incorporated into the draft revised document.
- TM 01-4 Soil Distribution Report - EPA stated that no comment will be provided on this report since EPA did not agree with the conclusion of the report and did not request that this report be prepared. Gina Tyo (ACE) stated that AMEC will reissue the letter stating the value of the report. EPA declined to comment on whether or not they would provide a response to this letter.
- Demo 1 GW FS - Further comment to be provided by EPA on 02/04.
- Central Impact Area Soil Report (TM 01-13) - DEP expects to provide comments shortly. Draft comments expected Monday or Tuesday. Comment resolution meeting should wait for DEP comment. Response to Comment Letter submittal date changed to 02/06.
- Draft FSP for Remaining Central Impact Area Targets – Resolution meeting for EPA comments remains scheduled for 1/31 to avoid delay in the deadline to start this work. DEP to provide comments before then if possible, so that they can be considered at the meeting.
- Demo 1 Ecological Risk Assessment Workplan. - Comment resolution meeting will be scheduled for week of February 4. DEP Eco Risk group to attend, EPA and DEP comment resolution to be combined in one meeting.
- RRA1 COWR and RRA 2 COWR - DEP considers these reports RAM Status Reports and therefore will not provide comment. EPA to provide comment on RRA2 COWR in two weeks.
- MSP2 Demo 2 Letter Report - Another copy (email) to be forwarded to EPA. EPA to check on comment status.
- J1J3L Range Additional Delineation Workplan #2 - EPA comments to be provided by 02/04. Mr. Grant mentioned that these comments are in the critical path for several enforceable milestones, and that the delay from the 1/15 date will result in changes to the schedule.

- TM 01-7 UXO Interim Screening Report - EPA comments in February. Mr. Grant mentioned that these comments are in the critical path for the 4/11 enforceable milestone for the final document and that the delay from the 1/17 date may result in changes to the schedule.
- Revised TM 01-10 (Demo 1 Soil Report) - EPA comments to be provided 01/28. DEP comments to be provided 02/08.
- Demo 1 Soil PSI Workplan - EPA comments expected to be provided 01/28. DEP comments to be provided 02/08.

Miscellaneous

- EPA provided specific comments on the ASR Interview summaries.
- Two Project Notes were distributed for signature at the beginning of the meeting. 1) Scopes of Work and Workplan Process and 2) HUTA2 Low-Level Explosives Sampling Workplan Addendum. For Project Note 1, Todd Borci (EPA) objected to the statement clarifying that time needed to be allowed to put the contract in process prior to asking a contractor to perform work, stating that this was understood. Statement to be crossed out for EPA/DEP signature. Project Note 2 signed as drafted.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turnaround time, typically 1-5 days. Explosive analyses for monitoring wells, and explosive and VOC analyses for groundwater profile samples, are conducted in this timeframe. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with non-detects.

The status of the detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 3. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 3, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

- Groundwater samples from 58MW0007B (CS-19), 90MW0101A (FS-12) and MW-157M2 (J-3 Range) had detections of RDX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds.

- 58MW0020B (CS-19) had a detection of RDX that was confirmed by PDA spectra. This is the first time 58MW0020B has been sampled

- Groundwater samples from 58MW0001 (CS-19), MW-01S (Central Impact Area), MW-164M2 (J-1 Range), and MW-166M3 (J-1 Range) had detections of RDX and HMX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds except that this is the first time method 8330NX was used for 58MW0001.

- Groundwater samples from MW-166M1 (J-1 Range) had detections of RDX and HMX that were confirmed by PDA spectra. Although RDX has been detected in previous sampling rounds, this is the first time HMX has been detected.

- Groundwater samples from 90WT0013 (FS-12) had detections of 2,6-DNT, 2A-DNT, 2-nitrotoluene, 4-nitrotoluene, and RDX. The detections of 2,6-DNT and RDX were confirmed by PDA spectra, but with interference. Of these five compounds, only RDX has been a valid detection in previous sampling rounds.

- Groundwater samples from MW-114M2 (Demo Area 1) had detections of 2-nitrotoluene, 4A-DNT, RDX, and HMX. The detections were confirmed by PDA spectra but with interference in the PDA spectra of 2-nitrotoluene. These results are similar to previous rounds except that 2-nitrotoluene has never been a valid detection.

- Groundwater samples from MW-73S (Demo 1) had detections of 2A-DNT, 4A-DNT, RDX, HMX, and MNX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds except that this is the first time method 8330NX was used in analysis of samples form this well and the first time MNX was detected.

3. DELIVERABLES SUBMITTED

Draft TM 02-1 Former A, Former K, and Demo 2 Report	01/22/02
Draft Summary Report – August 2000 UXO Detonations	01/23/02
Weekly Progress Update for January 14 – January 18, 2002	01/25/02

4. SCHEDULED ACTIONS

Scheduled actions for the week of January 28 include well installation of MW-193 (J3P-12), MW-194 (J3P-13), MW-197 (J3P-11), and MW-198 (J3P-16). Commence redrilling of MW-188S and drilling of MW-202 (CIAP-15). Continue well development of newly installed Central Impact Area and J Range wells. Commence J-2 Range polygon soil sampling.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume will be conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit. Proposed monitoring well locations have been scoped by the Guard and approved by the agencies for delineation of the groundwater plume. Road building for the first proposed monitoring well, D1P-9, is scheduled to commence the second week of February. Subsequent locations have been proposed and the next location will be selected and approved based on the profile results at D1P-9.

TABLE 2
SAMPLING PROGRESS
01/19/2002 - 01/25/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
T2.A.0D.008.1.0	T2.0D.008.R	01/25/2002	CRATER GRID	0.25	0.50		
T2.A.0D.008.2.0	T2.0D.008.R	01/25/2002	CRATER GRID	0.25	0.50		
T2.A.0D.008.3.0	T2.0D.008.R	01/25/2002	CRATER GRID	0.25	0.50		
T2.A.0E.002.1.0	T2.0E.002.R	01/25/2002	CRATER GRID	0.25	0.50		
T2.A.0E.002.2.0	T2.0E.002.R	01/25/2002	CRATER GRID	0.25	0.50		
T2.A.0E.002.3.0	T2.0E.002.R	01/25/2002	CRATER GRID	0.25	0.50		
90PZ0208E	FIELDQC	01/21/2002	FIELDQC	0.00	0.00		
HDP19105MMPE1E	FIELDQC	01/24/2002	FIELDQC	0.00	0.00		
W167M3T	FIELDQC	01/23/2002	FIELDQC	0.00	0.00		
W187M1T	FIELDQC	01/24/2002	FIELDQC	0.00	0.00		
W191M1T	FIELDQC	01/25/2002	FIELDQC	0.00	0.00		
90MP0059A	90MP0059A	01/21/2002	GROUNDWATER	145.00	148.00		
90MP0059B	90MP0059B	01/21/2002	GROUNDWATER	116.00	119.00		
90MP0059C	90MP0059C	01/21/2002	GROUNDWATER	91.00	94.00		
90PZ0208	90PZ0208	01/21/2002	GROUNDWATER	90.00	95.00	72.80	77.80
W115SSA	MW-115	01/24/2002	GROUNDWATER	116.00	126.00	0.00	10.00
W134SSA	MW-134	01/23/2002	GROUNDWATER	133.00	143.00	0.00	10.00
W156SSA	MW-156	01/23/2002	GROUNDWATER	77.00	87.00	7.00	17.00
W160SSA	MW-160	01/23/2002	GROUNDWATER	137.50	147.50	0.00	10.00
W161SSA	MW-161	01/23/2002	GROUNDWATER	145.00	155.00	6.00	16.00
W164M1A	MW-164	01/22/2002	GROUNDWATER	227.00	237.00	9.00	19.00
W164M2A	MW-164	01/22/2002	GROUNDWATER	157.00	167.00	119.00	129.00
W164M3A	MW-164	01/22/2002	GROUNDWATER	117.00	127.00	49.00	59.00
W166M1A	MW-166	01/22/2002	GROUNDWATER	218.00	223.00	112.00	117.00
W166M2A	MW-166	01/22/2002	GROUNDWATER	150.00	160.00	44.00	54.00
W166M3A	MW-166	01/22/2002	GROUNDWATER	125.00	135.00	19.00	29.00
W167M3A	MW-167	01/23/2002	GROUNDWATER	100.00	110.00	21.00	31.00
W168M3A	MW-168	01/22/2002	GROUNDWATER	103.00	113.00	21.00	31.00
W170M2A	MW-170	01/22/2002	GROUNDWATER	198.00	208.00	95.00	105.00
W173M1A	MW-173	01/25/2002	GROUNDWATER	243.00	253.00	0.00	0.00
W173M2A	MW-173	01/25/2002	GROUNDWATER	208.00	218.00	0.00	0.00
W173M3A	MW-173	01/25/2002	GROUNDWATER	188.00	198.00	0.00	0.00
W174SSA	MW-174	01/22/2002	GROUNDWATER	190.00	200.00	0.00	7.00
W177M1A	MW-177	01/22/2002	GROUNDWATER	375.00	385.00	186.20	196.20
W177M1D	MW-177	01/22/2002	GROUNDWATER	375.00	385.00	186.20	196.20
W177M2A	MW-177	01/22/2002	GROUNDWATER	278.00	288.00	87.30	97.30
W183M1A	MW-183	01/24/2002	GROUNDWATER	286.00	296.00	103.90	113.90
W183M2A	MW-183	01/24/2002	GROUNDWATER	270.00	280.00	87.90	97.90
W184M1A	MW-184	01/24/2002	GROUNDWATER	186.00	196.00	58.20	68.20
W184M2A	MW-184	01/24/2002	GROUNDWATER	126.00	136.00	0.00	10.00
W186M1A	MW-186	01/24/2002	GROUNDWATER	202.00	212.00	79.50	89.50
W186M2A	MW-186	01/23/2002	GROUNDWATER	182.00	192.00	59.60	69.60
W187DDA	MW-187	01/23/2002	GROUNDWATER	306.00	316.00	199.50	209.50

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 2
SAMPLING PROGRESS
01/19/2002 - 01/25/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
W187DDX	MW-187	01/23/2002	GROUNDWATER	306.00	316.00	199.50	209.50
W187M1A	MW-187	01/24/2002	GROUNDWATER	160.00	170.00	51.30	61.30
W187SSA	MW-187	01/23/2002	GROUNDWATER	103.00	113.00	0.00	10.00
W191M1A	MW-191	01/25/2002	GROUNDWATER	137.00	142.00	25.20	30.20
W191M2A	MW-191	01/25/2002	GROUNDWATER	120.00	130.00	8.40	18.40
DW012202	GAC WATER	01/22/2002	IDW	0.00	0.00		
HDP19105MMPE1	HDP19105MMPE1	01/24/2002	SOIL GRID	0.00	0.25		
HDP19105MMPE2	HDP19105MMPE2	01/24/2002	SOIL GRID	0.00	0.25		
HDP19105MMPE3	HDP19105MMPE3	01/24/2002	SOIL GRID	0.00	0.25		
J2.F.T13.001.1.0	J2.T13.001.O	01/22/2002	SOIL GRID	0.00	1.50		
J2.F.T13.001.2.0	J2.T13.001.O	01/22/2002	SOIL GRID	1.75	2.00		
J2.F.T8.001.1.0	J2.T8.001.O	01/22/2002	SOIL GRID	0.00	4.00		
J2.F.T8.001.2.0	J2.T8.001.O	01/22/2002	SOIL GRID	4.25	4.25		
T3.F.0A.LRZ.1.0	Transect 3 Grid A Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0B.LRZ.1.0	Transect 3 Grid B Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0C.LRZ.1.0	Transect 3 Grid C Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0D.LRZ.1.0	Transect 3 Grid D Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0E.LRZ.1.0	Transect 3 Grid E Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0F.LRZ.1.0	Transect 3 Grid F Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0G.LRZ.1.0	Transect 3 Grid G Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0H.LRZ.1.0	Transect 3 Grid H Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0I.HRZ.1.0	Transect 3 Grid I Matrix S	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0I.HRZ.2.0	Transect 3 Grid I Matrix S	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0J.HRZ.1.0	Transect 3 Grid J Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0J.HRZ.2.0	Transect 3 Grid J Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0K.HRZ.1.0	Transect 3 Grid K Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0K.HRZ.2.0	Transect 3 Grid K Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0L.HRZ.1.0	Transect 3 Grid L Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0L.HRZ.2.0	Transect 3 Grid L Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0M.HRZ.1.0	Transect 3 Grid M Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0M.HRZ.2.0	Transect 3 Grid M Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0N.HRZ.1.0	Transect 3 Grid N Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0N.HRZ.1.D	Transect 3 Grid N Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0N.HRZ.2.0	Transect 3 Grid N Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0O.HRZ.1.0	Transect 3 Grid O Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0O.HRZ.2.0	Transect 3 Grid O Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0P.HRZ.1.0	Transect 3 Grid P Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0P.HRZ.2.0	Transect 3 Grid P Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0Q.HRZ.1.0	Transect 3 Grid Q Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0Q.HRZ.2.0	Transect 3 Grid Q Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0R.HRZ.1.0	Transect 3 Grid R Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0R.HRZ.2.0	Transect 3 Grid R Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0S.HRZ.1.0	Transect 3 Grid S Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0S.HRZ.2.0	Transect 3 Grid S Matrix	01/24/2002	SOIL GRID	0.50	1.00		

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 2
SAMPLING PROGRESS
01/19/2002 - 01/25/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
T3.F.0T.HRZ.1.0	Transect 3 Grid T Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0T.HRZ.2.0	Transect 3 Grid T Matrix	01/24/2002	SOIL GRID	0.50	1.00		
T3.F.0U.LRZ.1.0	Transect 3 Grid U Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0V.LRZ.1.0	Transect 3 Grid V Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0W.LRZ.1.0	Transect 3 Grid W Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0X.LRZ.1.0	Transect 3 Grid X Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0Y.LRZ.1.0	Transect 3 Grid Y Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.0Z.LRZ.1.0	Transect 3 Grid Z Matrix	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.AA.LRZ.1.0	Transect 3 Grid AA Matri	01/24/2002	SOIL GRID	0.00	0.25		
T3.F.BB.LRZ.1.0	Transect 3 Grid BB Matri	01/24/2002	SOIL GRID	0.00	0.25		

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 01/5/02 - 01/25/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
58MW0001	58MW0001	01/11/2002	GROUNDWATER	121.00	126.00	3.60	8.60	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
58MW0001	58MW0001	01/11/2002	GROUNDWATER	121.00	126.00	3.60	8.60	8330NX	OCTAHYDRO-1,3,5,7-TETRANITR	YES
58MW0007B	58MW0007B	01/11/2002	GROUNDWATER	187.00	192.00	49.00	54.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
58MW0020B	58MW0020B	01/15/2002	GROUNDWATER		205.00		43.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
90MW0101A	90MW0101A	01/14/2002	GROUNDWATER	112.00	117.00	106.60	111.60	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
90WT0013	90WT0013	01/11/2002	GROUNDWATER	92.00	102.00	0.00	10.00	8330N	2,6-DINITROTOLUENE	YES*
90WT0013	90WT0013	01/11/2002	GROUNDWATER	92.00	102.00	0.00	10.00	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
90WT0013	90WT0013	01/11/2002	GROUNDWATER	92.00	102.00	0.00	10.00	8330N	2-NITROTOLUENE	NO
90WT0013	90WT0013	01/11/2002	GROUNDWATER	92.00	102.00	0.00	10.00	8330N	4-NITROTOLUENE	NO
90WT0013	90WT0013	01/11/2002	GROUNDWATER	92.00	102.00	0.00	10.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES*
W01SSA	MW-1	01/10/2002	GROUNDWATER	114.00	124.00	1.00	10.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W01SSA	MW-1	01/10/2002	GROUNDWATER	114.00	124.00	1.00	10.00	8330NX	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W114M2A	MW-114	01/07/2002	GROUNDWATER	120.00	130.00	39.00	49.00	8330N	2-NITROTOLUENE	YES*
W114M2A	MW-114	01/07/2002	GROUNDWATER	120.00	130.00	39.00	49.00	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W114M2A	MW-114	01/07/2002	GROUNDWATER	120.00	130.00	39.00	49.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W114M2A	MW-114	01/07/2002	GROUNDWATER	120.00	130.00	39.00	49.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W157M2A	MW-157	01/14/2002	GROUNDWATER	110.00	120.00	100.00	110.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W164M2A	MW-164	01/17/2002	GROUNDWATER	157.00	167.00	119.00	129.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W164M2A	MW-164	01/17/2002	GROUNDWATER	157.00	167.00	119.00	129.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W166M1A	MW-166	01/16/2002	GROUNDWATER	218.00	223.00	112.00	117.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W166M1A	MW-166	01/16/2002	GROUNDWATER	218.00	223.00	112.00	117.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W166M3A	MW-166	01/17/2002	GROUNDWATER	125.00	135.00	19.00	29.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W166M3A	MW-166	01/17/2002	GROUNDWATER	125.00	135.00	19.00	29.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W73SSA	MW-73	01/11/2002	GROUNDWATER	38.00	48.00	1.00	10.00	8330NX	2-AMINO-4,6-DINITROTOLUENE	YES
W73SSA	MW-73	01/11/2002	GROUNDWATER	38.00	48.00	1.00	10.00	8330NX	4-AMINO-2,6-DINITROTOLUENE	YES
W73SSA	MW-73	01/11/2002	GROUNDWATER	38.00	48.00	1.00	10.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W73SSA	MW-73	01/11/2002	GROUNDWATER	38.00	48.00	1.00	10.00	8330NX	HEXAHYDRO-1-MONONITROSO-	YES
W73SSA	MW-73	01/11/2002	GROUNDWATER	38.00	48.00	1.00	10.00	8330NX	OCTAHYDRO-1,3,5,7-TETRANITR	YES

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.
SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BGS
SED = SAMPLE COLLECTION END DEPTH IN FEET BGS
BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET
BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET
PDA/YES = Photo Diode Array, Detect Confirmed
PDA/NO = Photo Diode Array, Detect Not Confirmed
* = Interference in sample

Groundwater Wells at MMR

Highway 6
Flatrock Rd
Maston Rd
Cat Rd
Gaudet Rd
Burke Rd
Canal View Rd
Kendrick Rd
Orchard Rd
Monument Swamp Rd
Goat Pasture Rd
Route 130
Spruce Swamp Rd
Burgoyne Rd
Avery Rd
Gibbs Rd
Jefferson Rd
Pocasset Sandwich Rd
Monument Beach Rd
Route 28
Wood Rd
Barlow Rd
Frank Perkins Rd
Pew Rd
Turpentine Rd
Chadwick Rd
Wheelock Rd
Fredrikson Rd
Estey Rd
Pocasset Forestdale Rd
Mitton Rd
Greenway Rd By Pass
Howe Rd
Connery Ave
Herbert Rd
Greenway Rd
E Outer Rd
N Truck Rd
Ketteridge Rd
Simpkins Rd

Schooner Pass
SDW263111
PPAWSPW-1
PPAWSPW-2
PPAWSMW-3
PPAWSMW-1
PPAWSMW-2
MW-65
MW-66
MW-67
95-15,A,C
LRWS1-2
LRWS1-4
MW-160
MW-161
MW-16
11MW0002
11MW0003
11MW0004
11MW0001
MW-53
LRMW0003
LRWS3-1
WS-3
95-6B,ES
MW-62
MW-17
MW-52
RW-3
RW-2
WS-2
RW-1
MW-54
MW-55
MW-63
MW-149
MW-133
CIAP-15
CIAP-19
MW-178
MW-50
MW-51
MW-42
MW-10
MW-48
MW-49
SDW261160
MW-18
MW-176
CIAP-18
MW-23
CIAP-21
CIAP-20
MW-180
MW-185
MW-96
MW-41
MW-97
MW-124
MW-72
MW-123
BHW215083
MW-103
MW-102
MW-86
MW-43
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MW-3
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MW-11
WS-1
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MW-179
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MW-2
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CIAP-16
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MW-15
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MW-192
RANGECON
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MW-115
MW-6
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MW-8
MW-187
MW126
97-5
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MW-164
MW-29
58MW0006
MW-188
MW-130
MW-166
MW-117
MW-137
MW-80
MW-168
MW-58
SMR-2
MW-120
MW-57
MW-7
MW-152
MW-189
MW-191
MW-156
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MW-70
SMR-4
MW-190
MW-127
MW-116
MW-21
MW-13
MW-121
MW-154
LRWS2-3
MW-83
TEXTRONPW-2
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MW-122
MW-158
LRWS2-6
MW-14
MW-61
MW-28
MW-125
MW-132
LRWS7-1
MW-69
MW-74
MW-163
MW-131
MW-84
MW-46
MW-75
MW-76
MW-47
MW-77
MW-78
MW-31
ASPWELL
MW-19
MW-32
MW-79
MW-73
D1P-9
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MW-60
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MW-139
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MW-68
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MW-167
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03WT0021
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03MW0027A
27MW0569A-D
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27MW0704
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27MW0002
03MW0022A
CEMETERY2
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27MW0004
27MW0005
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27MW0001
27MW0013
03MW0024A
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27MW0025
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27MW0038
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27MW0105A
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27MW0027
28MW0106
27MW0049
27MW0092
27MW0044
27MW0106A
69MW1502
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MW-156
27MW0603
03MW0060
27MW0604A
USFW228040
USFW241098
03MW0604A

See Inset A

LEGEND

- Existing Monitoring Well
- Proposed Monitoring Well
- Existing Supply Well
- Proposed Supply Well

0 2000 4000 6000 Feet

N

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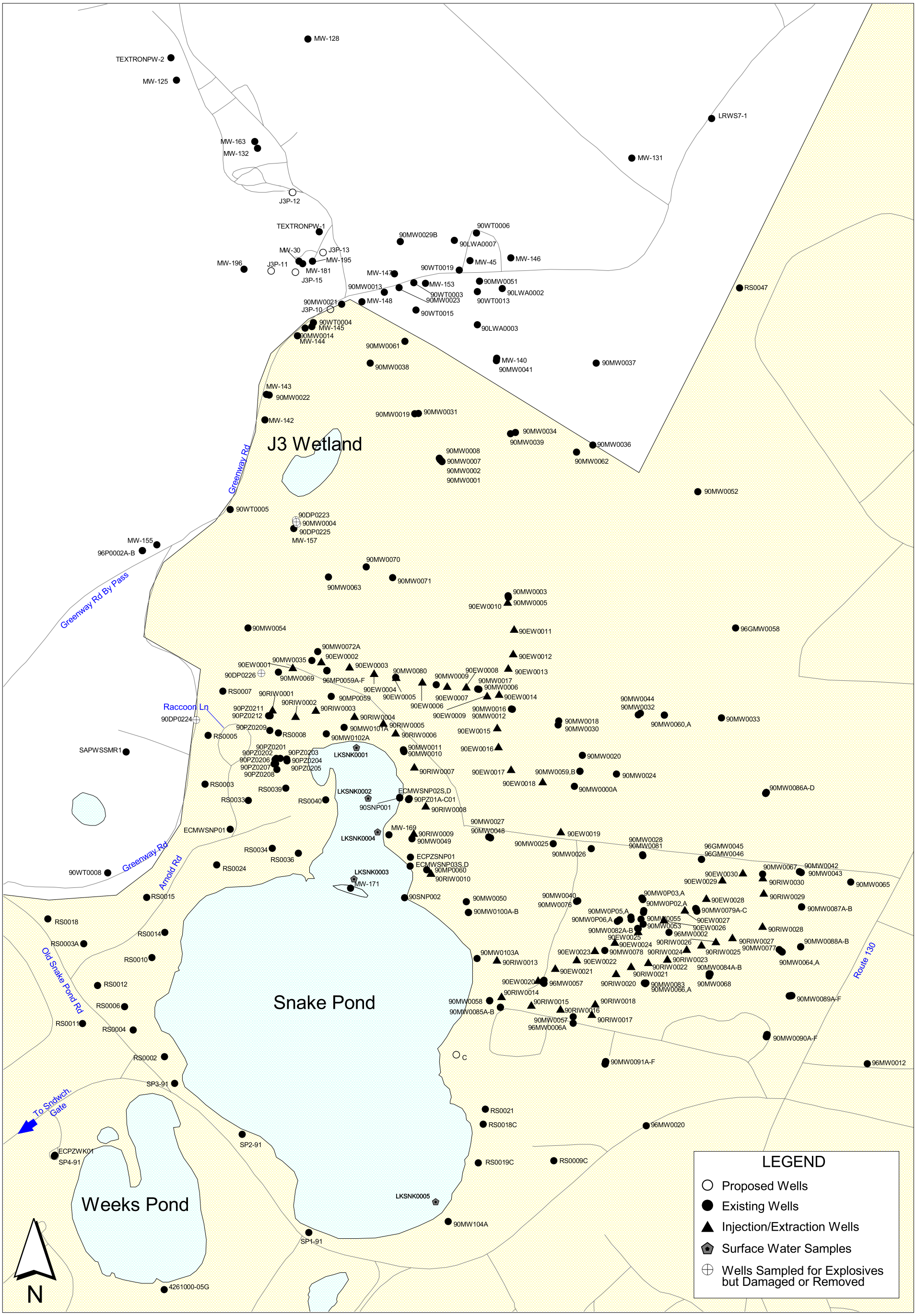

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